Grid Architecture

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(These slides are available at
grid.lbl.gov/~wej/Grids)

Grids: An Emerging, Common Computing and Data Infrastructure for Science and Engineering

Portals

- Web Portal Access to Application and Grid Services
- Specialized Portal Access (high performance displays, PDAs, etc.)
- . . .

Services

- Data Management: replication and metadata
- Resource Brokering
- Fault Management
- Workflow Management
- Accounting
- Applications

Services Building Blocks

- Encapsulation as Web Services
- Encapsulation for Script Based Services
- Encapsulation as Java Based Services

Basic Grid Functions

- Resource Discovery
- Scheduling and Access to Computing
- Uniform Data Access
- Monitoring and Events
- Grid Communication Functions
- transport services
  security services

Communications

- Internet
- optical networks
- space-based networks
- ...

Distributed Resources

national supercomputer facilities

clusters

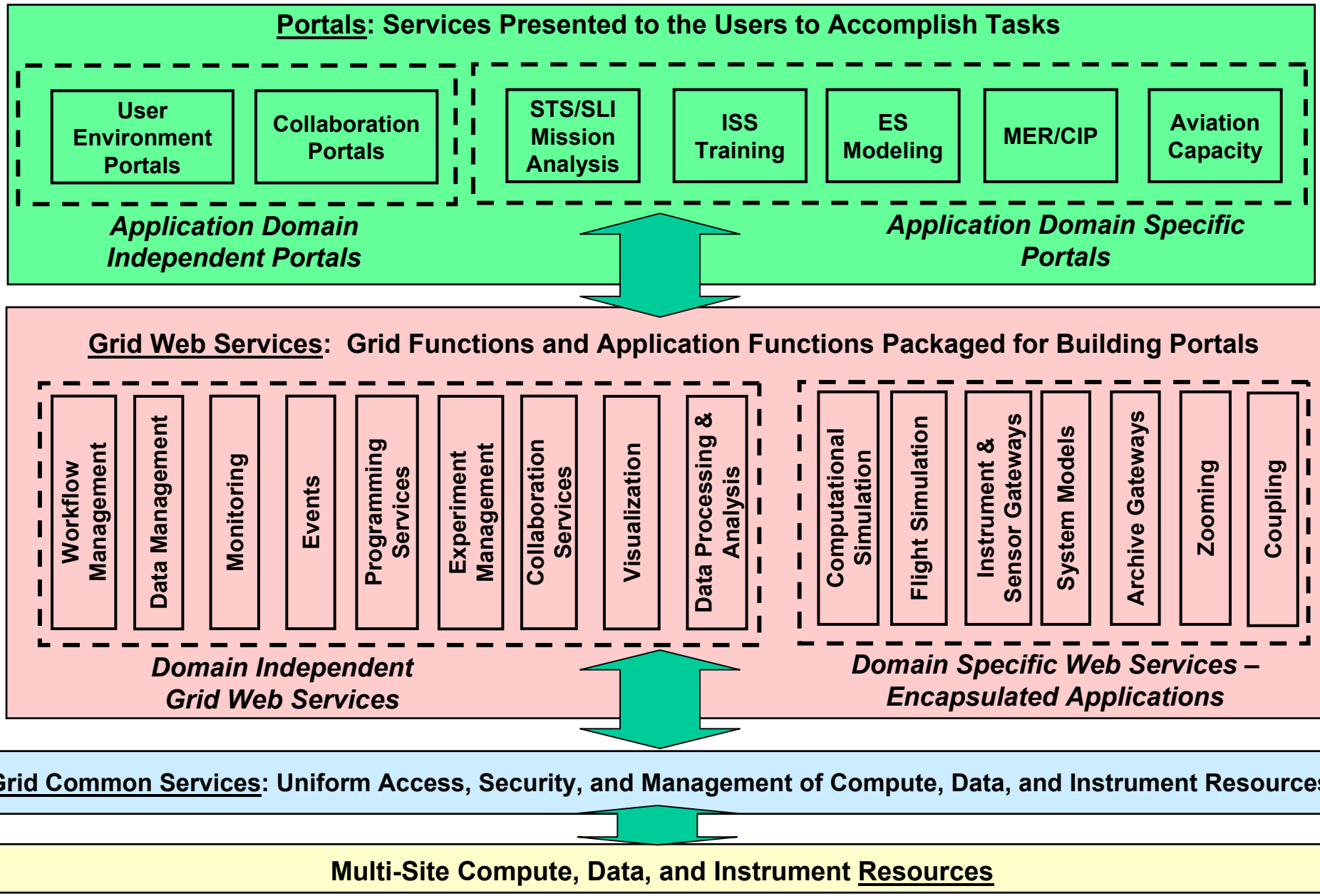
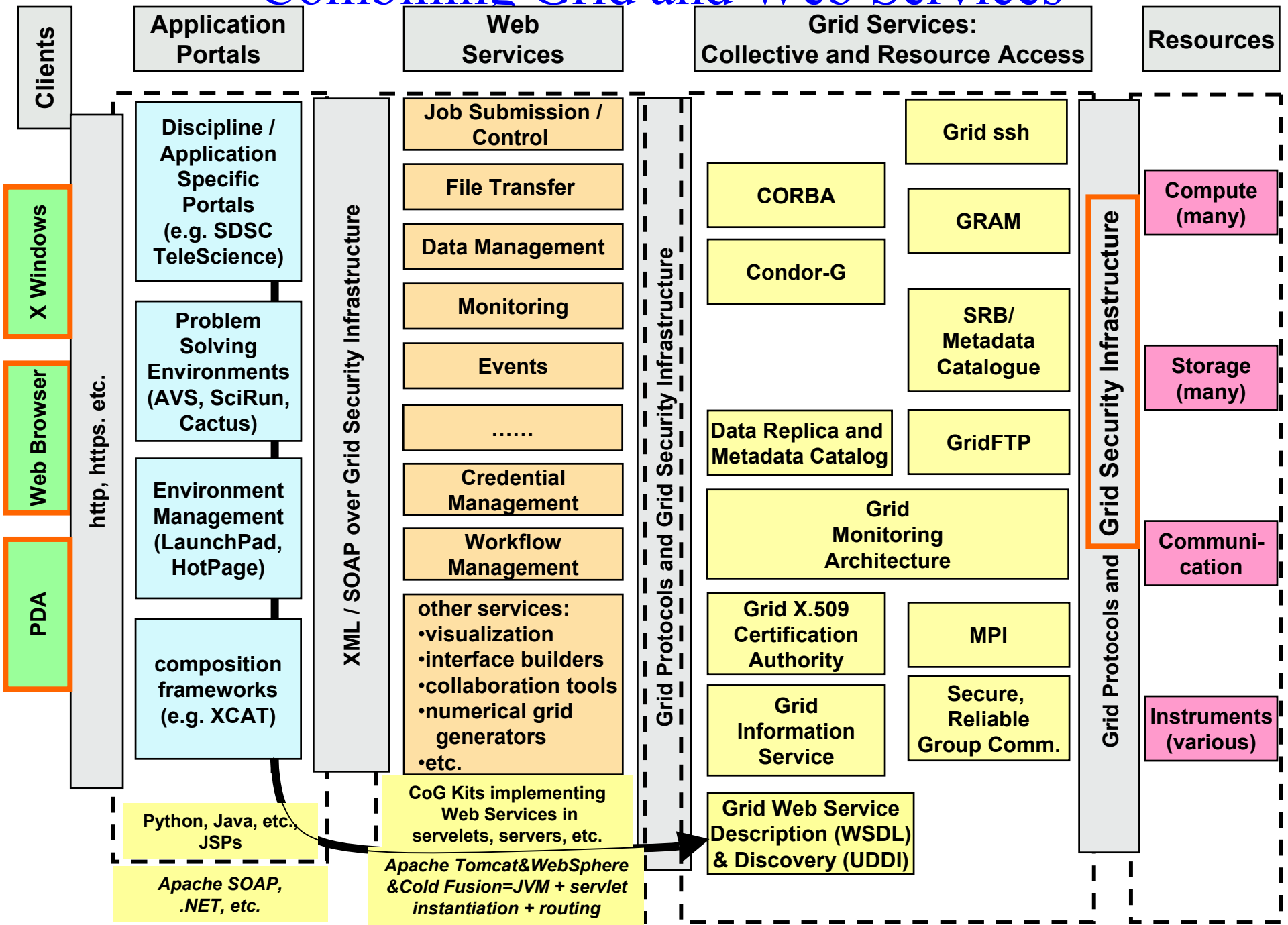
Condor pools of workstations

tertiary storage

scientific instruments

Operational Support

Grids: A Common Computing and Data Infrastructure for Science and Engineering



Combining Grid and Web Services